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STATISTIC, CLIMATIC AND ALLIED FEATURES OF SCARLET FEVER.

BY T. S. SOZINSKEY, M.D., PH.D.,

Of Philadelphia.

(Concluded from page 70.)

Relations of Foul Gases to the Disease.

It is now believed by many that there is a close connection between the presence of exhalations from fecal matter or sewage, and the prevalence of scarlet fever. It is hard to prove or disprove this, just as it is a similar belief in regard to diphtheria, as well as typhoid fever. Now, if there is a vital connection between each of these diseases and sewage exhalations or gases, the statistician should find all three, as a rule, most prevalent in places where the latter are most abundant, in the most unhygienic districts. It is worth while to look into the subject from this standpoint. It appears, from an analysis which I have made of the mortality from each of these diseases to the population in each of the wards of the city of Philadelphia, in the year 1875, that in the Fourth ward, the one in which scarlet fever was at its worst, typhoid fever was not, by a great deal, as bad as in the Nineteenth, and diphtheria was not half as bad as in the Sixteenth ward. The Fourth ward is thickly populated, and is one of the most unhygienic in the city. In the Nineteenth ward, the one in which typhoid fever was at its worst, the death rate of both scarlet fever and diphtheria was less than in a number of other wards. This is, in parts, a semi-rural ward. In the Six-

teenth ward, the one in which diphtheria was at its worst, the death rate of both scarlet fever and typhoid fever was less than in a number of other wards. It is a built-up and a comparatively unhygienic ward. The analysis does not show that the three diseases in question are, in common, essentially dependent on sewage emanations for their prevalence. It is more than probable, however, that unsanitary surroundings favor the spread of each, once it is started; and that this occurs largely through a reduction in the vital stamina of the population.

In this connection, it may be stated that in the report of the Health Officer of Philadelphia for the year 1878, this curious announcement is made: "It is somewhat remarkable that when diphtheria increases scarlet fever decreases; and when scarlet fever increases diphtheria decreases, as the following figures will show:—

	Diphtheria.	Scarlet Fever.
First quarter.....	135.....	164
Second quarter.....	81.....	151
Third quarter.....	90.....	94
Fourth quarter.....	158.....	145"

A broad generalization this! It is a pity there is no substantial foundation for it, as the "figures will show."

Relations of Age to the Disease.

Scarlet fever is very largely a disease of childhood. In his "Principles and Practice of Medicine," Dr. Flint says: "Statistics show that the disease occurs most frequently in the third and fourth year of life; that the liability to it diminishes rapidly after the fifth year, and becomes very small after forty." In the work of Drs. Meigs and Pepper, quoted from above, it is said: "The disease is most common between the

ages of one and five years." In this statement the Doctors are a little too indefinite; but it is assuredly true. The following table shows the ages at which the deaths from the disease in the United States occurred in the census year ending June 1st, 1870:—

Under 1.....	2,100	15—20.....	384
1.....	2,967	20—25.....	162
2.....	3,262	25—30.....	92
3.....	2,930	30—35.....	83
4.....	2,296	35—40.....	87
Under 5.....	13,555	Over 40.....	106
5—10.....	4,849	Unknown.....	12
10—15.....	1,140		

This table indicates that children of two years of age are most liable to the disease; but it must be remembered that the number of children of two years is greater than that of three, of three than of four, and of four than of five. The following table gives the deaths from the disease in Philadelphia, according to age, for the forty-seven years ending with 1878:—

Under 1.....	1427	10—15.....	496
1—2.....	3126	15—20.....	131
2—5.....	8635	Over 20.....	277
5—10.....	3933		

These figures seem to show that quite as many in their second year as at any other age, die from the disease. The number of deaths of persons over five is relatively small.

Now, is the rarity of this disease among persons over say ten years of age due to the fact that nearly all have had it? This is the view taken of the matter by many, and it is, of course, based on the principle that those who have had it are not liable, or at most but slightly so, to have it again. Likely, this is in part true, but there is reason for the belief, I think, that persons of tender age are naturally the most susceptible to it. It may be, however, that children are in some way specially exposed to the influences which tend to propagate it.

Relations of Sex to the Disease.

There appears to be some question as to the relations of sex to the mortality from scarlet fever. In their work (op. cit.) Drs. Meigs and Pepper say: "The truth is, probably, that under puberty it attacks the two sexes with about equal frequency; while after that age it is more common in females." According to the mortality statistics of the United States Census Bureau, collected for the year ending June 1st, 1870, it appears that more males than females die from it under five years of age, but that after that age more females than males. The following are the figures:—

Age.	Males.	Females.
Under 1.....	1173	927
1.....	1552	1415
2.....	1679	1583
3.....	1514	1416
4.....	1201	1095
Under 5.....	7119	6486
5—10.....	2377	2472
10—15.....	484	656
15—20.....	142	192
20—25.....	67	95
25—30.....	31	61
30—35.....	11	22
35—40.....	16	21
Over 40.....	46	60
Unknown.....	6	6

Of the 18,025 deaths from the disease in Philadelphia from 1831 to 1878 inclusive, there were 9129 of females and 8896 of males—a majority of the former of 233. The printed reports of the Health Officer of the city do not enable me to give any details on this subject. In the Report of the Board of Health for 1875 it is said, in reference to this matter, that "as most of the deaths occur under ten years of age, and as under this age there is an excess of the male population, we may therefore conclude that out of equal numbers of both sexes living, the deaths from scarlet fever are almost if not quite equally divided between the sexes."

This statement leads me to believe that the subject under discussion must be a very knotty one, for it contains passing strange logic. If there are more deaths of females than of males in a population with an excess of males, of course, the death rate among the former is higher than that among the latter. The excess of males born alive has nearly or quite disappeared before the fifth year of age is reached; so, after that period there are as many or more females than males, and consequently as many or more deaths of females than of males should be expected. But with an equal number of either sex living, the difference in their methods of life, apart from physical and mental differences, would lead one to expect more females than males to be attacked by the disease.

On the Cause and Spread of the Disease.

Does a study of the mortality statistics of scarlet fever, and their climatic, seasonal and other relations, enable one to point out what the immediate cause of the disease is, and how it is propagated in a community? I think it does, in a measure. I cannot enter here into a full discussion of these important matters, matters which have provoked much controversy. I will limit my remarks to a few brief statements, by way of addition to those already made incidentally. It is certain that the cause is something; it must be a

tangible thing. He must be a very loose and entirely unphilosophical thinker who can regard pestilential diseases as originating without a physical cause. Any tendency in this direction which may still exist is a relic of an unscientific age, a remnant of the mode of thought of the superstitious Romans, who erected on the Palatine Hill a temple to the Goddess of Fever. The plague which raged in the Grecian army, and which is described by Homer, is attributed by him to Apollo—

"Latona's son a dire contagion spread,

And heaped the camp with mountains of the dead."

We, too, hold that as the heat of the sun is, in a sense, essential to all vital activity, his "darts inflict the raging pest;" but there must be a medium. This was clear to Thucydides, who described the Athenian plague, as well as to Arateus and Galen, among ancient physicians; and from much that is contained in the code of hygiene of Moses, who was versed in the learning of the Egyptians, it is likely the idea is very ancient. But is this *materies morbi* a mere exhalation or a specific organism? Numbers of writers now hold that it is a living, self-propagating entity, a unit in creation, just as a house fly is, and that it never originates spontaneously. There would seem to be quite as much reason to hold that the sperm cell is a living, independent entity; this, I believe, nobody would venture to do. The possible properties of formless particles of organic matter of different kinds are as yet but very imperfectly known. The contagion of the disease is probably an unorganized substance, a sort of ferment, cast from the person of a patient suffering from the disease. But it is questionable whether or not every case of the disease can be traced to this; cases of it occur where, in all probability, there was no direct infection; or, as Dr. Hillier puts it, in his book, "The Diseases of Children," "I am strongly inclined to the belief that it does sometimes originate without exposure to infection." This is one of the difficulties in the way of the acceptance of the organized germ theory of the causation of the disease, unless the spontaneous generation of such organisms is admitted as possible. Very few cases of the disease can, however, be regarded as sporadic.

Drs. Meigs and Pepper say (op. cit.): "It has been abundantly proved, by long and reiterated observation, that scarlatina is propagated by two causes—contagion and epidemic influence. We have not the least doubt that the latter is by far the most active." What is meant by "epidemic influence?" It may refer to the cause of disease

as generated outside of the body, an aerial infection. And what is "contagion?" The cause of disease as generated in a person suffering from it. As applied to the disease under consideration, I think what is called "epidemic influence" might be interpreted as meaning the prevalence of an unusual susceptibility to the disease; and consequently, that contagion is almost, if not exclusively, the cause of the disease. This much is certain: that if the only or the chief cause of any disease is a self-propagating organism which is not destroyed by either a midsummer or a midwinter temperature and other meteorologic conditions, it follows that, as Noah Webster says of the plague, in his curious book, "The History of Epidemic and Pestilential Diseases," "it must rage forever; for the longer the disease exists the more extensive must it be." Any pestilential disease which can prevail through frosty weather may be regarded as contagious.

On the Prevention of the Disease.

The last feature of scarlet fever of which I will speak is its preventableness. Deaths from it do not necessarily occur. The disease is tolerated in our midst, and it destroys its hundreds and its thousands. In his book, already quoted from, Dr. Hillier well says: "I believe that if this disease were treated by government with the same activity that was displayed to prevent the cattle plague, it might be almost entirely extirpated. Isolation of the sick and careful disinfection of all articles used by them, and of places occupied by them, would effect this." In this city there is a law which calls for a report of every case of it, to be made by the physician in attendance, to the Board of Health; but it is not enforced; and practically it makes little difference whether it is or not. Only complete isolation of the sick will stay the spread of the disease; isolation for at least a month from the beginning of the attack. If every case of it as it occurs were taken to a suitable hospital, there is every reason to believe that the cases of it would soon be rare. Ought not something of this kind to be done? Is it not worth while, is it not politic and humane, to institute some effective measure to stay this insidious scourge, which promises to lay claim to one thousand victims during the present year (1880) in this city?

—Among its other afflictions, Ireland, says the *Dublin Medical Journal*, is over-doctored. There are at least 25 per cent. more medical men there than can get a living. It advises Irish graduates to emigrate.

ETHYL BROMIDE, OR HYDROBROMIC ETHER—CASES OPERATED ON UNDER ITS INFLUENCE.

BY GEO. F. SOWERS, M.D.,
Of Philadelphia.

There has lately appeared as a claimant for popular favor a new anæsthetic, or while perhaps not new, yet one that has not been very extensively known and employed. First brought into notice by Dr. Turnbull, of this city, it has well sustained the reputation which he gave it. Recommended by Dr. Turnbull to Dr. Levis, it has been employed quite frequently by the latter gentleman as an anæsthetic in his clinical service at the Pennsylvania Hospital. In no case, as yet, have dangerous symptoms presented themselves in anæsthesia produced by the bromide. Its action, while more prompt, is no more dangerous than that of ether, and while anæsthesia is as profound under its influence as that of either ether or chloroform, it is much more evanescent, patients perfectly anæsthetized being able, in from two to four minutes after its withdrawal, to walk or perform any motion requiring coördination. Another advantage of this agent is the small amount required to produce anæsthesia; two drachms will, in from one to three minutes, produce an anæsthesia as profound as an ounce of ether; its cost is, of course, a consideration; at present the bromide is worth about 40 cents an ounce, but when we take the relative quantities of other anæsthetics required to produce anæsthesia, the expense is not any greater, if as great. Under its influence any class of operations may be performed; major and minor operations are alike painless. Further, there is not present that depressing influence so often found in the use of ether and chloroform, nor is the desire to vomit present after its use, though occasionally there is slight, but not marked, nausea. I have the history of a number of cases operated on under the influence of the bromide, in which its physiological effects were studied; nearly all the cases were patients at the Pennsylvania Hospital, and a study of the notes taken will, perhaps, be interesting.

The first case in which this anæsthetic was employed was one of amputation of the thigh. Of this case I have been unable to obtain any further record than that eleven (11) drachms were used in the forty minutes which it took to perform the operation; in this case anæsthesia was produced in one minute; no bad after symptoms were exhibited.

In the next case, which was that of removal of cataract in a child, complete anæsthesia, with

snoring, was produced in one minute, by one drachm of the bromide; in three minutes, on account of returning consciousness, this amount was repeated. No nausea or vomiting followed the use of the anæsthetic.

In the next case the patient, a man, had fallen from a height, and met with a fracture of the tibia. Previous to the administration of the bromide the pulse beat 80 strokes to the minute; under the anæsthetic it rose steadily to 85 and then to 90. Two drachms were first administered; in one minute the patient talked and cried out, very much in the manner of one under the influence of ether. In one and a half minutes this excitement had subsided, and in 2 minutes the patient was snoring and thoroughly relaxed. The examination and dressing of the patient's fracture occupied ten minutes, and in this time four drachms of the bromide were used; the pupils remained normal during this period, face slightly flushed, skin warm. Two minutes from the time of withdrawal of the bromide saw the man perfectly conscious; slight nausea but no vomiting supervened.

The effects of the anæsthetic in the next case were not, unfortunately, very fully studied. The operation was that of external perineal urethrotomy; this case, when admitted to the house, gave a history of having been tossed on the horns of a cow; the urethra was torn across, and a cicatricial stricture had formed; this had been repeatedly operated on, but unsuccessfully. When admitted to the house a filiform bougie was with difficulty introduced, the parts being exquisitely sensitive. Unfortunately no notes of the quantities given and the time were taken. In this case, however, the diaphoresis, which would seem to be one of the characteristic symptoms in anæsthesia from the bromide, was first noticed; in the first stage of anæsthesia the pupils became widely dilated, and the patient perspired profusely; the pupils after a time became contracted, but the sweating remained as a marked feature.

The next case upon which the bromide was employed was that of a girl, who in early life had lost her arm (about the middle of the humerus) in a railway accident. A spicula of bone extruding from the stump now required removal. Two drachms of the bromide were administered to her at 11.31 A.M.; at 11.32 patient quiet; 11.33 patient talking, but no struggles; 11.34 anæsthesia complete, and another drachm administered; pulse not depressed, respiration unaffected; 11.36 patient snoring; 11.38 patient conscious; some sweating, but not marked.

The next case in which the bromide was used was one in which it was necessary to remove three of the toes and some of the metatarsal bones, on account of syphilitic disease. The pulse before the operation marked 182, and excited, the respirations 27. At 11.26 two drachms were administered; at 11.28 another drachm; patient snoring at 11.29, at which time the operation, lasting till 11.31, took place; at 11.30 another drachm; pulse 120, respirations 24; patient sweating profusely, and face congested, or, to be more accurate, flushed; at 11.34 patient woke; pulse 104; thus in eight minutes from the administration of the first drachm the patient was perfectly conscious.

A boy suffering under paraphimosis became the next bromide subject. Anæsthesia took place in one and a half minutes in this case. The first drachm was administered at 11.52 A.M.; at 11.53 patient was snoring; at 11.53½ the second drachm was administered; the pulse, which before the operation beat 105, now beat 120, respirations 22; at 11.55 another drachm; respirations little rapid, and 24 to the minute; at 12 M. patient conscious. No after symptoms.

The next case was one in which it was necessary to search for a bullet which was supposed to be imbedded in the tissues of the forearm. Six drachms were employed, one drachm being administered every two minutes; pulse before anæsthesia 105, respirations 32. First two drachms administered at 11.31 A.M.; at 11.34 face flushed, patient excited, and another drachm administered; at 11.35 pupils dilated and patient snoring; pulse 112, respirations 32; at 11.36 another drachm given; 11.38 another drachm; at 11.39 profuse diaphoresis; at 11.40 another drachm; at 11.41 patient snoring, pupils contracted, pulse 96, and stronger; 11.42 another drachm; at 11.44 the Esmarch bandage removed; at 11.47 patient conscious.

Amputation of the second joint of the little finger was the next case upon which the bromide was employed. In this case more resistance was offered to the effect of the anæsthetic than in any case thus far experimented upon, though it is but fair to add that the patient was given to alcoholism. Pulse before anæsthesia 120, respirations 24. At 11.49 two drachms administered; at 11.51 one drachm administered; face flushed, pupils dilated, patient excited; at 11.52 patient snoring, and pupils widely dilated; at 11.53 another drachm; at 11.55 anæsthetic withdrawn; and at 11.57 patient conscious, and walked out of the arena without assistance.

The next operation in which the bromide was

employed was that for the relief of anal fistule. Pulse before administration of anæsthetic 160, respirations 28. At 12 M. two drachms were administered; at 12.03 pupils dilated and patient somewhat excited, and another drachm administered; at 12.05 another drachm given; patient quiet; at 12.06 anæsthetic withdrawn; and at 12.07 patient conscious.

The next subject upon whom the bromide was used was a boy suffering with phimosis. Pulse before anæsthesia 96, respirations 24. Two drachms administered at 12.11; at 12.13 another drachm given; face flushed and sweating present; at 12.15 another drachm; at 12.16 another drachm; 12.17 patient snoring, pupils dilated, profuse diaphoresis; at 12.18 bromide withdrawn; at 12.20 patient conscious, and walked out of the room without assistance.

The next use made of this anæsthetic was in the examination and setting of a fractured thigh. In this case neither pulse nor respiration was affected. Two drachms were administered at 11.15; at 11.17 patient unconscious, and another drachm administered; at 11.19 another drachm; at 11.20 anæsthetic withdrawn; and at 11.21 patient conscious.

In the next case it was necessary, on account of disease, to incise the periosteum, and to produce anæsthesia the bromide was employed. At 11.49, pulse being 110, respirations 32, the usual quantity of two drachms was administered; at 11.50 the face flushed, pupils slightly dilated; at 11.51 another drachm; at 11.52 bromide withdrawn; and at 11.53 patient able to dress himself and walk out.

In the next case a cancerous growth was removed from the roof of the mouth, one of the superior maxillæ having been removed some weeks previously, on account of disease in the antrum. Pulse before anæsthesia 88, respirations 27. In this case three drachms were employed, the patient being under the influence of the drug for four minutes. It took three and a half minutes to fully anæsthetize him, and one and a half minutes for him to recover consciousness after the withdrawal of the bromide.

The last case the notes of which I shall report was one in which it was necessary to employ the actual cautery, on account of synovitis of the knee joint, the patient being a boy about 17 years of age. The pulse before operation beat 120, respirations 28; two drachms administered at 12.53; at 12.54 pupils slightly dilated; at 12.55 another drachm given; pupils more markedly dilated; at 12.57 patient perfectly relaxed, and unconscious, sweating slightly, face flushed; at

12.58 another drachm; patient now in profuse diaphoresis, and pupils widely dilated; at 12.60 \mathfrak{z} as administered; pulse 120, respirations 20 and slower; at 1.02 P.M. patient perfectly conscious. It will thus be seen that bromide of ethyl presents the great advantage of safety (so far as any anaesthetics are safe), rapidity of action, smallness of quantity required to produce anaesthesia, but little action on the respiration and circulation, and a rapid passing away of anaesthesia. Further, its odor is not unpleasant, those standing three feet from the point at which it is being administered not being able to detect it; it is not inflammable (and it is, in fact, said to put out fire), thus presenting an advantage for night use. One should understand, however, how best to administer it. A small napkin should be folded and pinned to a folded towel that covers the patient's face; on the napkin two *measured* drachms of the bromide should be poured, and the patient directed to take long, deep inspirations, or, what is better, prolonged and forced expirations; in two minutes from the time of administration of the first two drachms a second drachm should be given, and this should be repeated at intervals of two minutes. Thus far each drachm has been measured, and it would, no doubt, be economy to follow this plan altogether in the administration of the bromide; waste is thus avoided and the effects of the drug can better be studied. It would seem that the bromide of ethyl is one of the long desired boons of medicine; to the country practitioner it presents a vehicle potent in small quantities, not making it necessary for him to carry a quart bottle to each operation he may be called on to perform, a half-pound bottle of the bromide answering for many operations; to the city practitioner it presents the advantage of not filling his office or the house of the patient with an odor that is not only unpleasant to many, but which lasts for such a length of time as ether does. I have been told by a gentleman (practicing in the country) who has employed this new agent, that he can now perform an operation in his office, and have his patient leave in from 10 to 15 minutes from the withdrawal of the bromide, while when ether is administered, he must remain 3 or 4 hours until the effects of the ether, the nausea, vomiting, etc., have, in some measure, passed off. If time is money, surely we save with this agent both time and money.

—Biggsville, Ill., has a medicinal spring that is said to be good for sore eyes.

DO WE KNOW ANY CAUSE OR CAUSES OF TYPHOID FEVER?

BY W. J. CRAIGEN, M.D.,
Of Cumberland, Md.

Dr. De Havilland Hall, in his valuable work on "Differential Diagnosis," says of typhoid fever: cause, "decomposing animal and vegetable matter" (page 38); "can often be traced to an external zymotic or septic influence" (page 42); locality, "old soil; may be high and dry and long settled" (page 38).

This may be the best information we have on the subject, but I believe it to be an error. I will take, for instance, an endemic which occurred in this place; but first it may be well to try to give some description of the city. Cumberland is located in a well drained valley at the junction of the Potomac river and Will's Creek, surrounded by high hills and mountains. Nearly all its streets are paved with cobble stones; are kept moderately clean; has a good supply of water, and is about as well cared for by the authorities as any other city. Situated on the northern boundary, at the foot of a hill, is Decatur, a pretty little street of four squares, with comfortable brick dwellings, many of which are large and commodious, with intervening space between. The western portion of the street crosses at right angles the mouth of a small valley, in which is a short, unpaved street, two hundred yards long. This little street contains thirty badly constructed tenement houses, mostly frame, where live a portion of the colored population of the city. The locality is known as "Frog Eye." On each of the hillsides above Frog Eye, and parallel with it, is an occupied street. Near the western end of Decatur, and apparently an extension of it, is Columbia street, situated on a higher elevation, with fine brick residences, disconnected, with gardens and front yards. Here reside, in comfort and ease, many of the best residents of the city. On a moderate declivity, facing south, is Hanover street, south of and somewhat at right angles to Columbia. It is more compactly built up, with neat frame and brick houses. These three are the cleanest streets we have, well paved, with clean gutters and sidewalks. They have no sewers, I believe, and all the waste water from the hydrants is conveyed into the gutters by short drains. The soil on Hanover street is said to be moist.

At the southern end of the city is the head of the Chesapeake and Ohio Canal, and canal basin, an expanse of eight or ten acres of water, where coal boats are loaded from two large wharves

which extend across the basin. Along the northern bank of the basin is an unpaved street, six hundred yards long. Between this street and the railroad bank is a narrow strip of land, on which is a row of fifty poorly built, low, frame structures, used for green groceries, saloons, various shops, smithies, etc. This place is the resort of boatmen, and is known as "Shanty Town."

Through two-thirds of the thickest settled portion of the city, and parallel with Will's Creek, is a mill race, open except where it passes under the streets and some residences. This receives the contents of the sewers, washings from the streets, refuse from dye houses, pig styes, numerous privies along its banks, and is a receptacle for the drainage from the territory occupied by four-fifths of the population. This race empties into the head of the canal at the upper end of Shanty Town, and its debris is deposited opposite.

Water is supplied equally and sufficiently to all the inhabitants, from the Potomac, by the Holly system. Its quality is not the best, however, and causes diarrhoea in those unused to it.

In 1877 an endemic of typhoid fever occurred. The largest number of cases were on Decatur, Columbia and Hanover streets, in the best families and finest mansions, where there was clean apparel, clean, well ventilated rooms, clean premises, good diet and clean cooking. Many families had the advantage of good cistern water. I do not know the number of deaths, but many cases were severe and protracted. While, behold, Frog Eye, not three hundred yards distant, with its dirty denizens, in their filthy clothing and bedding, overcrowded, small, unventilated rooms, coarse food, badly cooked in unclean vessels; its neglected sinks and surroundings; its disgusting odors; its butchers' shambles; its open mud ditch and dirty street; its hillside cemetery; its swine, goats and geese at large; not a single case occurred. And disgusting Shanty Town, with its numerous mule pickets around the front doors, and its privies almost in the back doors, its decomposing garbage, stagnant basin and offensive effluvia, had but two cases. And the margins of the mill race also appear to have been nearly exempt.

I have no faith in the sewer gas theory, neither has the following changed my belief: The house I have occupied since April last borders on the race. The plumbing includes marble wash basins in the sleeping apartments, with bath room, tub, and water closet in rear building. The waste water enters a sewer, one hundred

and seventy-five feet long, which receives several other sewers, and leads to the race. When the water is discharged from the receptacles in the house, a strong volume of offensive gas escapes from the pipes into the occupied rooms, and for aught I know does so day and night. The former owner, who superintended the plumbing, admits the traps are defective.

A case of typhoid fever occurred in his family about four years ago, and was attributed to a defective sewer impregnating the well water. The sewer was changed, but he did not inform me why the other eight persons in the house escaped. His wife attributed some sickness in the family the following year to malarial poisoning.

I have intentionally avoided flushing out and disinfecting the pipes and sewer, to test the virtue of sewer gas, yet no case has occurred thus far. Some physicians claim that in proportion as the water level becomes lower typhoid fever increases, but here, during the whole of the present summer and fall, the water in the streams is said to have been lower than ever before known. I think we have had as little, if not less, typhoid than usual.

A thoughtless writer says, absence of sewers and cesspools, even in the primeval mountain forests, where there are few settlers, is a cause of typhoid fever. That "where it occurs in isolated places, beside pure streams and bubbling springs, the excreta are almost invariably allowed to accumulate close to dwellings, and escape into the soil around, so that it becomes saturated, and in many cases finds its way into springs and wells." Now, ye mountain practitioners, you that know the source of your typhoid cases, why not stamp it out? He also says, "Liebermeister says that the prevalence of typhoid fever in any place depends largely upon the extent to which the inhabitants drink the contents of their privies and sewers." Liebermeister should extend his investigations to Cumberland.

Here the drainage from the territory occupied by one-fifth or one-fourth the population, and a large cemetery, flows into the river just above the mouth of the supply pipe of our city water works. After continuous rains the water we use contains large quantities of mud, decomposing animal and vegetable matter, and other disagreeable substances, and shows heavy deposits on standing. We also have a large coal wharf above the mouth of our supply pipe.

But the most startling assertion he makes is, "but I have rarely seen a case in which I could not, with extreme probability, point out the source of the disease." This is a most unfortu-

nate statement. It is apt to mislead the ardent worker after truth and facts. If not prejudice, it indicates an unfamiliarity with the subject which is deplorable indeed. Here is a delusion, a deceptive imagination, an obtuseness of the reasoning faculties, an impaired judgment.

In contradistinction, hear the words of a veteran. "Neither do we think that a practitioner who has had the experience of a single season of epidemic typhoid fever in the country can refer to these agents as the cause of such epidemic, without rejecting the evidences of his own senses." See paper by Dr. George Hamilton, on relation of sewer gas to typhoid fever, *MEDICAL AND SURGICAL REPORTER*, May 3d, 1879. Also see editorial in the *REPORTER*, February 5th, 1876.

I may be running counter to the opinions of the entire scientific world, but certainly not contrary to the views of experienced practitioners.

January 2d, 1880.

A REMARKABLE CASE OF RECOVERY FROM OPIUM POISONING IN AN INFANT LESS THAN THREE DAYS OLD.

BY J. P. THOMAS, M.D.,
Of Pembroke, Ky.

Mrs. F. was taken in labor at 12 o'clock on the night of the 29th of September, and delivered, after a severe and tedious labor, at 9½ o'clock the following night, of a male child, weighing in the nude state nearly eleven pounds.

This was Wednesday, 9½ p.m., September 30th, 1879.

The mother complained, from the first, of considerable abdominal soreness, and on the second day, there being great tenderness in uterine, and especially in left hypochondriac region, accompanied with fever, fetor in the discharges, etc.; fearing septic fever, carbolized injections were directed to be given, with turpentine stupes over the abdomen.

Apart from after pains there was constant pain complained of, accompanied with great nervousness. For this condition, the following was added:—

R. Spts. nitros. æther., ʒj
Sulph. morphie, grs. iij.

SIGNA.—A teaspoonful every four hours, or oftener, according to urgency of pain.

Mrs. F.'s mother was her nurse, and barring her extreme interest and anxiety for her daughter, a very good one.

Up to 12 o'clock of third day Mrs. F. had

taken five teaspoonfuls of the morphia mixture, when, as I was leaving, the grandmother called my attention to the fact that the baby's bowels were inactive and its skin very yellow, for which half a grain of calomel was left, with instructions to mix it in a teaspoonful of olive oil, and give to the child, as soon as she completed some directions for the mother. The olive oil was in an ounce vial, precisely in form as the one containing the morphia mixture, but was full, and plainly labeled "olive oil," while the other was less than half full, and not labeled. Yet, by some unaccountable act of carelessness or absent-mindedness, two hours after my departure, at 12 m., Saturday, she gave the infant, who was less (from 12 m. to 9½ p.m.) than three days old, the dose intended for the mother (the subject of circumscribed peritonitis), a dose a fraction over one-third of a grain of morphia.

Notwithstanding the strength of the nitre, she said the child swallowed it without even a wry face; it was two hours after its administration before she discovered her terrible mistake, and another hour elapsed before I could be summoned and reach the house. The dose was given at 12 m., and I arrived exactly at 8 p.m. Though it was evident that all the poison had been removed from the stomach by absorption, yet an effort was made to induce vomiting, by ipecac. and warm water, by enema, and oiled feathers twisted into the fauces repeatedly, but without success. It was evidently useless to attempt the administration of an antidote, or anything else per os, because the muscles of deglutition were entirely paralyzed, and, as a consequence, there was danger of its entering the trachea and producing death by arresting the already extremely feeble respiratory efforts.

Soon finding the sphincter ani too much relaxed to retain anything given per rectum, and having broken my hypodermic syringe, artificial respiration was the only means left me. Notwithstanding the apparent hopelessness of success, I determined to make an effort to prolong life, if possible, by artificial respiration, until the poison should be exhausted by time.

The effort to arouse him or keep him aroused by the usual means of hot baths, or cold to the head and face, or all of the various appliances for that purpose, were abandoned after the first hour, as useless, and only fatiguing and exhausting to the little patient. Until strong coffee could be prepared, the little fellow was kept enveloped, from his waist down, in a flannel wrung out of water as hot as the skin would bear, short of blistering, for its revulsive effect, and to keep

up animal heat. Then the coffee was substituted, for the reason that it would fill the same indications as the hot water, and in addition, by absorption, it might prove antidotal. With his head slightly elevated, my right hand on the thorax, with its fingers covering the apex of the heart, and my left ready to grasp with its finger and thumb his nose, I awaited patiently the suspension of respiration, which constantly became more feeble, and finally intermittent; the cardiac contractions corresponding, as to feebleness, exactly with the respiratory effort. The first entire suspension of respiration, but with the heart continuing to beat very feebly, was at 7 P.M., seven hours after the poison was given. Grasping the nose with the finger and thumb of the left hand, and my lips surrounding his mouth, the lungs were inflated to their fullest capacity, being careful not to rupture the air cells by using gradual but steady expirations of my own. One inflation was all that was required on this first effort at artificial respiration; when instantly, with a gasp or two, the breathing was reestablished, with increased and regular action of the heart. To my surprise this action continued nearly one hour, when suddenly, with a sort of cluck, respiration ceased, the heart contracted, and the surface became livid. As before, the lungs were inflated, but with no responding gasp.

When the air was expelled by firm but gentle pressure upon the thorax, and the lungs were again filled, instantly the heart began rapidly to pulsate, but it was several seconds before the lungs responded and the anxiously expected gasp was heard. After three or four gasping efforts at respiration, the breathing became smooth and regular, but did not continue over thirty-five minutes. As before, with a sudden cluck, the breathing ceased, the heart became perfectly still, surface a leaden hue, mouth, tongue and lips almost black; this time the extremities rapidly became cold; in fact, every sign of life disappeared. The same manipulations, much oftener repeated, however, first started the heart to contracting, then, by much more prolonged and intermittent gasps, the respiration was again established; the cyanosis was replaced by the bright red color of skin.

But for a number of times successively, in fact, until the last three resuscitations, the period of breathing without cessation diminished, until from continuing for nearly one hour at first, it would not continue over ten minutes, and toward the last, each time it required a more prolonged effort to reestablish the circulation by the stimu-

lation of the impure oxygen; though I was careful to fill my lungs with a full inspiration each time before inflating the child's, yet it was necessarily somewhat carbonized by first entering my lungs.

I can but think if I could have had some sort of bellows, it would have required fewer inflations, and rendered the little patient less sore, as far as his ribs and lungs were concerned, by the repeated pressure upon them in expelling the air. But to be brief, after succeeding thirty-seven times in resuscitating this little patient, occupying a constant attendance and watch of over forty-eight hours, he was finally rescued from death. The thirty-seventh effort at resuscitation was only made at the earnest request of a sobbing father, eloquent with distress; not until ten minutes had elapsed did I yield to his pleadings, as I had lost all hope of final success, and left the room exhausted, with the announcement, "I will not make another effort."

Although it required a longer time before the systole of the heart was felt, and longer before an effort at respiration was observed, yet I was finally rewarded for all my prolonged and arduous labor, by not only complete reestablishment of the breathing, as in all the preceding efforts, but more liberally so by its continuing from this on, without the slightest arrest in the action of the heart or lungs. It was still several hours before the child could be induced to swallow milk from a spoon or nurse from its mother; not until the third day, or about fifty-five hours from the administration of the morphia. Its first effort at nursing was a very feeble one, but soon after, on giving him the nipple, he grasped it and nursed vigorously, and evidently with an appetite that it was dangerous to satisfy at "one sitting," having been nearly three days without food, except an occasional enema of milk during the last two days, and but little of this was retained, owing to the relaxed condition of the sphincter ani.

Now, I can conceive of no physical labor so exhausting, to say nothing of the anxiety consequent upon seeing an almost heart-broken grandmother nearly demented with the terrible idea that she was the murderer of the child. It was through sympathy for her that I labored so long to restore it.

This brief report is made only for the purpose of showing what patience and perseverance can sometimes accomplish, and as a precedent to others not to abandon such cases as hopeless because they look so; many such, even adults, that might recover are given up too soon.

I am a strong believer in the antidotal and antagonistic powers of belladonna versus opium; and if I had had at hand a hypodermic syringe I should have used atropia. It now seems fortu-

nate that such was not the case, as the subject was so young I should doubtless have overdone the thing, and failed of success.

EDITORIAL DEPARTMENT.

PERISCOPE.

Value of Venesection in Pleurisy.

Dr. E. Copeman, of Norwich, England, writes to the *British Medical Journal*—

There is one form of disease which is peculiarly under the influence of bleeding as a remedy, and if treated in its early stage or onset, is cured by it very speedily and satisfactorily. Nevertheless, it has fallen into disuse in these latter times, in this as in almost every other disease. I allude to idiopathic pleurisy. I well remember, when I was living in the country, many years ago, an epidemic, if so it may be called, of pleurisy; and I was called to many of the cases, and summoned early, on account of the severe pain attending the commencement of the attack. I resorted to venesection in almost every case, with the result of immediately relieving the pain and very quickly curing the patient—indeed, it was almost the only treatment required; the blood was allowed to flow until the pain was gone and the breathing free, and then an opiate draught was given, to produce sleep, and the patient was well in a few days. The last time I ever myself bled a patient was in a case of pleurisy, and the circumstances were so peculiar and the relief so immediate that I cannot refrain from relating the history of it in order to establish my point, that bleeding is a valuable resource in the early treatment of this disease.

On July 4th, 1861, I was requested, at night, by my late friend and colleague, Dr. Ranking, of Norwich, to visit a gentleman who was at the time the High Sheriff of the county. He had traveled from Southampton in the day, and sent for Dr. Ranking when he arrived in Norwich in the evening, on account of his suffering from very acute pain in the left side and great difficulty in breathing. For this Dr. Ranking applied leeches, followed by opiate fomentations, calomel and opium, antimony, etc., but without relief; and when he came for me he said his patient was literally bellowing with pain, and that he would die unless something else could be done for him. I found him complaining of severe pain in the left side, rendering him unable to move that side of the chest enough to yield any stethoscopic signs; he was feverish and anxious, had a rapid pulse (110), and said the pain would kill him if not soon relieved. It appeared that he had been lately suffering from some kind of fever, with congestion of the lungs, in Jersey, from which he had but just recovered; and this, together with the fatigue of his long

journey from Southampton, threw a little doubt on the propriety of bleeding; but as there was no time to be lost, I strongly recommended bleeding from the arm, which, after consulting the wife, was acceded to. I, therefore, at Dr. Ranking's request, at once opened a vein, and allowed the blood to flow until the pain was relieved. He was placed in the sitting position, and the quantity of blood drawn amounted to twelve or fourteen ounces.

Next morning we found him very much better, pulse below 100, scarcely any pain in the side, only a little dull aching, and we could now distinctly recognize friction sounds in the seat of pain. He took an aperient draught, and at night had a blister; but he was so much better that I did not see him again. Dr. Ranking told me a day or two afterward that Mr. M. was well enough to go to his own home, a distance little short of twenty miles from Norwich; that the bleeding had acted like a charm; and that his patient had expressed to him that he felt better than he had done for several months. Here was a case in which bleeding was practiced under what would generally be thought the very unfavorable circumstances of recent previous illness, and the fatigue of a long journey on the same day; yet it proved eminently successful, and there is every reason to suppose the patient would have died without it. He is still alive and well.

Is Scarlatina Contagious?

Dr. E. M. Snow, of Providence, says, in his last monthly report as Registrar of that city, speaking of a recent epidemic there—

It seems to me that the comparatively sudden and universal outbreak of scarlatina in every portion of the city at nearly the same time, is of itself convincing proof that the disease is spread by other means than by contagion. Certainly, if the disease has been spread by contagion alone, it must be a contagion possessing characteristics and governed by rules utterly different from any with which we are acquainted. It must be a contagion so subtle, so diffusive, so tenacious of vitality, and so rapidly spreading, that it is nothing but the sheerest nonsense to give any directions for preventing, or destroying, or controlling it. It must be above and independent of all the known laws of nature, and of course, independent of all our efforts to control it.

I do not believe in any such contagion as that. We may grant that scarlatina may be contagious, or rather infectious under some circumstances, and to a limited extent, and still not believe that

Jan. 31, 1880.]

Periscope.



ordinarily or generally it spreads by contagion or infection.

My experience and careful observation during the last twenty-five years have satisfied me that scarlatina, as well as diphtheria, chiefly and generally depends for its propagation upon two causes: First, an epidemic cause, probably atmospheric, possibly electric, or other. Second, foul air, or foul water, mostly the former, and generally, in cities, foul air from privy vaults or sink drains or cesspools.

The first of these causes has different characteristics in connection with the two diseases named; the second cause is the same in both. Neither of the causes named can alone produce any great amount of scarlatina or diphtheria, and if either of the causes could be effectually removed, the disease now prevalent would speedily cease.

With this view, scarlatina and diphtheria are highly preventable diseases, and every citizen of Providence is, to some extent, responsible for the great amount of scarlatina in the city at the present time. The practical inference should excite and demand the immediate attention of every head of a family in the city. It is to remove, as speedily as possible, all sources of foul air in the vicinity of houses, and to make such arrangements as shall effectually prevent the children from breathing the foul air from vaults or cesspools, either in the daytime or in the night, and especially in the night. Remove, or thoroughly disinfect, all deposits of filth, and cut off and stop up all pipes that are suspected of bringing foul air into the house.

Peptonized Milk.

This preparation is recommended for invalids, by Dr. Roberts, of Manchester. He says of it, (*British Medical Journal*)—

After a good many trials, I now advise the following procedure for preparing peptonized milk for the sick room. A pint of milk is first diluted with half its bulk of water, and heated to about 150° Fahr. It is then put into a covered jug with a tablespoonful of liquor pancreaticus and twenty grains of bicarbonate of soda (in solution). The jug is then placed in a warm place, under a "cosey," for one hour. At the end of this time the milk is at once raised to the boiling point. It can then be used like any other milk, and undergoes no further change until decomposition sets in. It is well, however, to know that peptonized milk does not keep well, and that it should be used within twelve hours of the time of preparation. The use of the thermometer may be obviated by directing the milk to be diluted with an equal bulk of boiling water.

Another formula, which supplies a more nutritious product, and does not require the thermometer, is the following: To half a pint of cold milk, in a covered jug, add half a pint of well boiled and boiling gruel. This gives a temperature of 120° to 130° Fahr. To this add a dessertspoonful of the liquor pancreaticus, and a dessertspoonful of a saturated solution of bicarbonate of soda (which contains about ten grains). Put under a "cosey," as before, and heat to boiling at the expiration of an hour. In this case

the trypsin of the pancreatic extract acts on the casein of the milk, and (I presume) on the starch contained in the gruel. The diastase of the extract also acts on the starch of the gruel, and converts it into sugar. This method gives us a preparation similar in design to Liebig's food for infants, but in which the proteids, as well as the amylacea, are subjected to digestion. The making of it is exceedingly easy, and it would seem well adapted both for the nursery and for the sick room. The gruel employed should be made thin; it may be prepared from wheat flour, or from oatmeal, or from any other farina.

I have now used these fractionally digested articles of food in a considerable number of cases, and in many with gratifying results. If the process be properly performed, if it be cut short by boiling at the right moment—that is, after the curdling phase has passed away, and before ulterior changes have rendered the milk unpleasant to the palate—the resulting products are liked as well as if they were simple milk and water or simple milk gruel. But if the process be carried too far—or if, on the other hand, the milk be still partially curdled when put before the patient—the product is not liked, and is even apt to cause nausea.

Risks of Intra-uterine Medication.

Dr. C. Godson writes to the *British Medical Journal*—

With respect to intra-uterine medication, the results are likely to be serious; and I have already met with instances. If an application to the cavity of the body of the womb be required, there should be an amount of *endometritis* calling for it; but, in how many cases of discharges from the os uteri does the exudation come from above the canal of the cervix—the so-called internal os? I venture to say, in very few. The probe, covered with cotton-wool saturated with carbolic acid, is passed along the cervical canal up to the fundus uteri, and in many cases good results are obtained—not because the fundus uteri has been reached, but because the application has been made to the canal of the cervix; and, had a zinc-alum point been placed in this situation, and the uterine cavity have not been reached, the result would have been equally satisfactory, without the risk of danger possible to occur from probing the cavity of the womb. This brings me to the nature of the evil consequences.

One which I have met with is abortion. The possibility of existing pregnancy has not been thought of. The patient may have gone but a few days over her time for menstruation, and, not having been very regular previously, little heed is paid to this. Nevertheless, she may have conceived immediately after her first period, and, if even she have not quite reached her next menstrual epoch, she may yet be pregnant when the application is made. Another danger is that of inflammatory mischief in and around the uterus. It is well known how the simple passage of the ordinary uterine sound is liable to give rise to this. Surely, then, a probe saturated with carbolic acid or other agent is equally if not more likely to produce such results.

The points, therefore, that I would urge upon

my professional brethren are these. Before deciding to make applications to the cavity of the body of the womb, be satisfied that this part is affected by disease, and that it is not the cervical canal only that is involved. Without having determined this, it would be just as irrational to pass a medicated bougie into a man's bladder for every purulent discharge escaping from the meatus urinarius.

Perityphlitic Abscess Treated with Aspiration through the Rectum.

Dr. E. D. Merriam, of Ohio, writes to the *Buffalo Medical and Surgical Journal* the following case:—

I was called to see Charles Salisbury, September 25th, 1879, aged nineteen years. Found pain and tenderness in the right ileo-cæcal region, which, for the first few days, extended considerably over the abdomen, but under hot fomentations and anodynes the general peritonitis subsided, leaving a circumscribed tumefaction, with pain and tenderness in the right iliac region. The fever was not high nor the pulse above 100 at any time during the whole course of the disease. A blister applied on the eighth day drew well, and by the eleventh day the tumefaction was diminished, and at the same time dysuria, with some distention in the pelvic region, was making its appearance. The bowels moved without pain; urination was frequent, painful and scanty. On the twelfth and thirteenth days there appeared a slight watery and mucous discharge from the rectum, and by digital examination, per rectum, fluctuation was discovered by pressing at the right side of the rectum, about two and a half inches above the anus; on the fourteenth day, assisted by Dr. F. H. Field, I punctured the abscess, through the rectum, with the largest needle of Dieulafoy's aspirator, and drew off one and three-quarters pints of fetid pus, the last ounce of which was somewhat mixed with blood, indicating the thorough evacuation of the cavity; from this time the patient made a speedy recovery, and was discharged in two weeks. The point of special interest to me in this case was the fact that not a drop of pus was discharged after the first evacuation of the abscess. The immediate closing and healing of so large a cavity was unexpected.

Successful Treatment of Enlarged Prostate.

In the *Proceedings* of the Medical Society of Delaware, Dr. G. W. Marshall gives these suggestive cases:—

John M—, aged seventy-eight, farmer, sent for me February 2d, 1878, and I found him with all the characteristic symptoms of idiopathic prostatitis, with retention of urine, and enlargement of the right lobe of the gland. I used the catheter and gave an anodyne to allay any nervous irritability which might be caused by the introduction of the instrument; also compound cathartic pills to unload the bowels, with a fever mixture of aconite, antimony and morphia every three hours, together with iodide of potassa and fluid extract ergot three times daily. I had to continue the use of the catheter for over three

weeks, when I dismissed the case as cured, but still continued the iodide and ergot for a week longer. There was no recurrence of the trouble, although the man died of apoplexy eleven months afterward.

John H. P—, aged sixty-seven, retired farmer, was taken with characteristic symptoms of idiopathic prostatitis, with the right lobe as large as a walnut. The catheter was used daily, the bowels unloaded with a clyster of castor oil, and enema of starch and laudanum *pro re nata*, to allay the excessive pain, and iodide of potassa and fluid extract ergot every four hours. On the tenth day the case was dismissed, as the patient was able to empty his bladder himself, without any pain or any other unpleasant symptoms.

James F—, colored, aged sixty, farm laborer, consulted me after having been under the care of other physicians for some time. I treated him for vesical catarrh, but without success. One evening, he being in so much pain, I used the catheter and found the left lobe of the gland enlarged. I immediately had recourse to anodyne enemas and the iodide and ergot, as in the preceding cases, and in one week's time he reported to me as feeling as well as ever, and having to rise but once during the night to micturate.

I believe the *rationale* of the treatment to be, viz: The iodide as an alternative and absorbent, and the ergot to contract the afferent vessels and renal artery and diminish the amount of urine secreted (thus mitigating a painful obstacle at the outlet) and also to contract the unstriated muscular tissue of the prostate gland. And lastly, to diminish the amount of enlargement by partially closing the arterioles of the gland.

The Cheyne-Stokes Respiration.

A paper on this subject, by Dr. Edes, is mentioned in the *Boston Medical and Surgical Journal*:—

The phenomenon in question consists in a rhythmical change in the vigor and depth of the respirations, somewhat as follows: Beginning with a period at which the respiration is of exaggerated intensity, sometimes being even *dyspnée*, the depth of the respirations becomes gradually less and less, until they are nearly, and then quite, imperceptible to ordinary observation and to auscultation. No cyanosis or indication of distress, or *besoin de respirer* is, however, to be noticed. After a duration of some seconds a just perceptible respiratory movement is to be seen, succeeded by a more ample one, and so on until the maximum of activity is reached, which may be either a full, ordinary respiration, or one sufficiently labored to be termed *dyspnée*. In many cases movements of various muscles, more or less voluntary, have been observed; among others, dilatation of the pupils, general movements of the body, turning over, or twitching of the limbs are not uncommon, occurring at the end of the apnoea, or with the shallow respirations which first succeed it. This form of respiration should not be confounded with that due to the falling backward of the tongue or to a paralytic condition of the glottis. It is evident that the phenomena of Cheyne-Stokes respiration are

due to a lack of irritability of the nervous centres in the medulla oblongata, so that they fail to respond to their usual stimulus, namely, an excess of carbonic acid. The phenomenon has probably less value as an element in diagnosis than was at first supposed. It was thought by Stokes to be associated with fatty degeneration of the heart, but has now been seen in connection with other diseases of the heart, brain and kidneys. The paper closed with a report of five cases of Cheyne-Stokes respiration, four of which occurred in members of the same family, namely, father, mother, and two sons.

Effects of the Plaster Jacket on the Spinal Muscles.

In connection with Dr. Banning's views, published in the *REPORTER*, we take the following, by B. Roth, F.R.C.S., in the *British Medical Journal*, December, 1879. He says:—

Sufficient attention has not been directed to the effects produced on the nutrition of the spinal muscles by the application of Sayre's plaster jacket, in slight and moderate cases of lateral curvature of the spine. As far as I know, Mr. Golding-Bird is the first surgeon who has pointed out (*British Medical Journal*, October 11, 1879) that "the dorsal muscles invariably waste from want of use, under the jacket." I cannot understand how this important fact can have been overlooked so long. It is well known that a limb kept immovably fixed in a splint for six weeks or longer will show, at the end of that period, a decided amount of wasting of its muscles, from want of use. How much greater must be the wasting in the erector spinal and other dorsal muscles when a Sayre's jacket has been worn for six months or longer! Mr. Golding-Bird goes on to say that in lateral curvature "the muscles are called upon the moment the jacket comes off; so that, if they are wasted, the patient will be often utterly unable to keep himself erect on the removal of the jacket till his muscles are again in working order." I maintain that the dorsal muscles were not "in working order," before the plaster jacket was put on. Muscular weakness is a potent, if not the chief, cause in the production of lateral curvature. Now, would it not be more in accordance with common sense to strengthen these weak muscles in cases of slight or moderate lateral curvature, than to apply Sayre's bandage, under which they "invariably waste," as Mr. Golding-Bird admits? In severe cases of lateral curvature and in Pott's disease (caries) of the spine, the plaster jacket is the only possible and the best treatment, because, whether the muscles continue to waste or not is of little or no importance here.

Dr. Sayre advises daily extension of the patient, and Mr. Golding-Bird appears to consider this an efficient means for exercising the spinal muscles. I do not think this can be at all proved. I have now a young lady, aged nineteen, under treatment, who was treated for more than a year by daily suspension, in addition to wearing a Sayre's jacket for some months, for very slight lateral curvature. This treatment had been discontinued some months before I was consulted, on account of her head "poking" as much or more than before. In this case the cervical

muscles were evidently not strengthened by the daily suspension, although they were necessarily more stretched than the muscles of the dorsal or lumbar regions of the spine.

Mr. Golding-Bird writes that cases of upper dorsal lateral curvature "must have a jury mast." Now, as a large proportion of slight cases of lateral curvature present this deformity, these patients would have to submit to the great discomfort of wearing the head piece, and this, probably, for an indefinite period, as this extension does not strengthen the muscles, as I have tried to explain above. A much simpler method for correcting the deformity of (upper) dorsal lateral curvature is to direct the patient to stretch the arm corresponding to the concavity of the curvature upward by the side of the head, and to make himself as tall as possible. This position will be found to improve, or even to quite restore the normal outline of the spine in slight cases. This voluntary effort is surely a better means for strengthening the weak muscles than any amount of passive extension by hanging. Besides this posture, frequently repeated, other means should be employed for strengthening the muscles, as by voluntary contraction against resistance (medical gymnastics, *Heilgymnastik*), by methodical rubbing and faradization.

Effects of Local Irritation on Pain.

At the meeting of the Académie de Médecine, on the 4th inst. (*Bulletin*, No. 44), Dr. Dumontpallier read a memoir on "Local Therapeutical Analgesia induced by the Irritation of the Similar Region on the Opposite Side of the Body."

From this communication it results that pain seated at one point of the body yields to an injection of simple water (which, as is known, produces local irritation) at a similar point on the opposite side. In neuralgias of different seat and nature, in acute articular rheumatism, and in rheumatic or toxicological neuralgia, I have requested patients to mark with the finger the painful points, and that being done, I have sought out similar points on the opposite side of the body, and at these latter points, for the most part not painful, I have practiced injections of water or simple punctures. As soon as irritation has been produced on the sound side the patients have acknowledged a diminution, and often a complete cessation of the pain on the bad side, and that, I repeat, in cases of rheumatic arthritis. I have chosen this last example as a demonstration, as one could scarcely, in such a case, be deceived by patients. The joint may be red, swollen, hot and painful to the touch or the slightest movement, but immediately that the little operation is terminated the patients find that the pain diminishes or disappears, and that they can perform flexion or extension of the joint; the swelling preventing much motion, but the pain is gone."

The following are the conclusions arrived at:—
"1. Every subcutaneous medicinal injection is a complex operation, in which a part must be assigned to the medicinal substance and a part to the irritation produced. 2. The local irritation is transmitted from the periphery to the sensitive centres, and there determines a modification, the consequence of which is a diminution or cessa-

tion of the peripheric pain: 3. The real, anatomical seat of certain peripheric pains should then be in the sensitive centres—an assertion which seems demonstrated by the crossed action of induced peripheric irritation. 4. Irritation induced *loco dolenti*, or in the vicinity of the painful point, assuages or causes the cessation of pain; and when the irritation is induced at symmetrical points on the opposite side of the body, it proves often sufficient to cause a complete and durable cessation of pain."

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—*New Preparations*, published by Geo. S. Davis, of Detroit, begins the year under the title of *The Therapeutical Gazette*.

—In a reprint of twelve pages, Dr. E. T. Bruen, of this city, describes several cases, illustrating the fact that anasarca is often a symptom of deficient vaso-motor tonus.

—An excellent oration on alcoholic drinks, as diet, as medicines and as poisons, delivered by Dr. Alfred Carpenter, in 1878, has been reprinted. His opinions would limit the use of such dangerous beverages to the positive demands of disease.

—The leading article in *The Penn Monthly*, for January, is by Dr. Isaac Ray, "On the Isolation of Persons in Hospitals for the Insane." Dr. Ray holds, with strong expression, that the certificates of two physicians should be sufficient justification for the committal of persons to an insane asylum, without further process of appeal or trial, and he accepts the existing law as only the best thing under the circumstances.

—A monthly journal, to be entitled *The Clinical Record*, has been commenced, under the editorship of Drs. Dunglison and Woodbury, of this city. Its object is more particularly for the purpose of conveying to those interested the most reliable intelligence of current affairs at Jefferson Medical College, and of furnishing a means of intercourse between graduates of the school. Published by Claxton, Remsen & Haffelfinger.

—Dr. C. H. Hughes, of St. Louis, has added some further observations on the diagnostic significance of absent patellar tendon reflex. His conclusions are that while absent patellar tendon reflex is often of significance as an associated symptom of present locomotor ataxia, and may even serve, when unassociated, to excite suspicion of its approach, we are not justified in regarding it, when it is the only phenomenon observable, as a

certain sign; or when it is absent and the other symptoms are present, in excluding a diagnosis of posterior sclerosis.

BOOK NOTICES.

The Theory and Practice of Medicine. By Frederick T. Roberts, M.D., etc. With illustrations. Third American, from the fourth London edition. Philadelphia, Lindsay & Blakiston, pp. 528.

Dr. Roberts' *Practice* has achieved considerable popularity, through the clear arrangement which he adopts, and the direct style in which he presents the subjects he handles. The plan he follows is that of the official Nosology, dividing diseases into General and Local Diseases. Probably as little can be said against this classification as against any; at least, it has stood the test of use very well.

The present edition has, the author states, undergone a thorough revision, especially the chapters relating to the absorbent system and the nervous system. We have, on previous occasions, explained the details of Dr. Roberts' plans. He is, perhaps, less full and clear in therapeutic directions than most would like; and he does not, it appears to us, do quite as much justice to American writers as he should; but in both these respects he resembles several other leading English writers on Practice.

The work is well printed, and the illustrations, though not numerous, are well executed and printed.

A Manual of the Practice of Surgery. By W. Fairlie Clarke, M.D., Oxon., etc. Third edition. New York, G. P. Putman's Sons. 12mo., cloth, pp. 443. Price \$2.50.

This is one of those convenient little epitomes, small enough almost to carry in the pocket, which are popular among English students, and are, indeed, models of careful condensation from the larger text books. We are obliged to say of this one, however, that the author does not always present the most accepted views of his subject. His article on gunshot wounds gives the teachings of a quarter of a century ago, and is very far from representing that of to-day. The presentation of the antiseptic method (pp. 15, 16) is very inadequate, in view of its importance. The subject of splints is treated very superficially; and in several other sections we have noted a deficiency of statement which is to be regretted.

Quite a number of small illustrations, generally well printed, are scattered through the book, and its manufacture is very fair.

THE
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D. G. BRINTON, M.D., EDITOR.

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 115 South Seventh Street,
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BEERS AND ALES, CONSIDERED MEDICALLY.

The enormous and increasing consumption of what is known as "lager beer" in this country should attract the attention both of sanitarians and sociologists. Whether, as some claim, this must be hailed as an indication of improved drinking habits in the people, by the substitution of a light alcoholic drink in the place of distilled spirits; or whether, as another party maintains, it really indicates more widespread alcoholic indulgence, and offers but another step to make easy the *descensus Avernii*, is matter for the sociologist to study. The qualities of the beverage and its effects on the constitution belong to medicine.

In England what Americans call ale is known as beer; and the total consumption is estimated at 150 quarts per year per head of adult population! But this enormous quantity is distanced by Belgium, whose natives swallow an abominable sour stuff called *faro*, a beer fermented till the acetous elements are developed, to the extent of about 160 quarts per head; and is alto-

gether left out of sight by Bavaria, the Paradise of beer swilling, whose inhabitants guzzle at the rate of nearly 800 quarts (to be accurate, 289 liters) per adult per year! The total annual production in the United States is estimated at over (300,000,000) three hundred million gallons annually, an enormous increase within the last twenty years. This includes what are termed ales, porter and brown stout, as well as beer. The price at wholesale is from five to eight dollars a barrel.

Theoretically, these beverages are produced from barley malt, hops and pure water, and nothing else. From two to three bushels of malt and as many pounds of hops are allowed to a barrel, and the liquor should have five to eight per cent. of alcohol, according to age. And when made in this way, carefully fermented and properly kept, such a beverage would be as unobjectionable as any that could be named holding alcohol as a constituent.

In point of fact, however, very little such malt liquor is to be had. There are chemical manufacturers in this country whose principal business consists in supplying artificial substitutes for the genuine components of these drinks, and also means of correcting, adulterating, coloring and re-making, as it were, spoiled and fraudulent articles.

It is well known that the principal use of *glycerine* is now by the breweries. It is added to impart smoothness to the fluid, to give it a fine froth or "head" when drawn, and to conceal the taste of certain adulterants. Instead of hops, what is known to the trade as "hop substitute" is used, which is a bitter vegetable bark, finely chopped, and often combined with aloes. Picrotoxin and strychnia are probably never employed. To give a crisp, dry flavor, esteemed by some, tannate of sodium is added; to impart a bright brown hue, preparations said to be made from burnt sugar are sold; liquid isinglass, to add the esteemed "creaminess;" and so on. Then there are various materials to bring up a spoiled brewing to the proper marketable character—bluish-white of sodium, "ale finings," "porterine,"

etc., the results of applied chemistry in this questionable department of science.

Whether the consumption of such stuff is likely to benefit the drinker, especially when taken in large quantities for a length of time, is open to serious doubt. It has been said by European observers that chronic alcoholism from beer is one of the most hopeless forms; that the mental faculties are debilitated and the reaction of the system slight. It would be well for surgeons in our large municipal hospitals to examine into the relative power of endurance of beer drinkers and others.

We have seen no analysis of American beers; they have been exempt from such inquiries. We add, therefore, the plan pursued by Dr. Enders, a German chemist. He mixes one liter of beer, in an evaporating dish, with ten grams of fine granular animal charcoal, evaporates the mixture to dryness on a water bath, stirring occasionally, treats the residue, after cooling, with cold water, until the filtrate passes colorless, and then extracts the charcoal with hot alcohol, which dissolves all bitter principles and alkaloids; these may afterward be readily determined by their respective tests. The charcoal contains, besides the bitter principles, only a little coloring matter.

One thing is clear; that physicians who recommend beer or ale to patients should make themselves sure that they are not thereby leading them to the consumption of stuff more perilous than the diseases the stimulant is intended to combat.

NOTES AND COMMENTS.

Therapeutical Notes.

CURE OF GLEET.

In his late monograph on gleet, Dr. J. C. O. Will, of London, recommends, as the best and safest of all remedies for the cure of gleet, "the passage once or twice a week of a cold, well-oiled metallic bougie, combined with the internal use of cantharides or ergot."

CHLORAL IN DIPHTHERIA.

R. Chloral hydratis, ʒj
Aque, ʒj. M.

Use as a gargle every hour or two.

Dr. R. Carney, in the *Canada Lancet*, says this is "a specific in diphtheria;" it has "a wonderful effect, the patches rapidly peeling and the patient promptly improving." It may be applied by a sponge swab in infants.

SULPHATE OF ZINC IN ANÆMIA.

Dr. Fenwick notes that in anæmia, coexistent as it often is with cardiac hypertrophy, iron is objectionable, and may be advantageously discarded for zinc sulphate, as in the following formula:—

R. Zinci sulphatis,
Extr. gentiane, aa gr.ij
Pill. rhei. comp., gr.j.

For one pill, twice or thrice daily.

CHALK PIGMENT.

For burns, scalds, and in erysipelas, the following is quite popular in the London hospitals:—

R. Crætæ preparatæ, ʒv
Olei olivæ, ʒj
Acidi acetic diluti, mxx.

Mix well, and paint on with a camel's hair brush. (W. F. Clarke.)

ANTI-ODONTALGIC.

The following is sent us by Dr. J. Pirnat, of Indiana:—

"The following toothache panacea I have used for the last ten years, viz:—

R. Chloral hydratis,
Gum. camphoræ, aa ʒj
Olei caryophylli, gtts.xx.

Sig.—Saturate a small piece of cotton and plug the cavity with it."

Bills Rendered.

In the numbers for this week and next week we forward bills to all those subscribers from whom we have not heard previous to the 28th of January. The attention of those whom it concerns is respectfully asked to these reminders. They will oblige the management of the journal greatly by sending the amounts promptly, either by postal order, registered letter, or draft, directly to the editor. When these facilities are not convenient, the money may be placed in a letter, in the presence of the postmaster, and sent at our risk, as we once before explained.

The increased cost of paper, type, and all printing material, has largely added to the expense of journalism, and we trust that subscribers will relieve us somewhat by punctuality in attending to the bills when we present them. It is needless to add that any error in them, if such occurs, will be most cheerfully corrected.

Diphtheritis and Tracheotomy.

From Dr. Settegast's report of the Surgical Station in the Hospital "Bethanien," at Berlin, for 1873-1876 inclusive, we take the following statistics:—

During the period of 1873-76, inclusive, 568 cases of diphtheritis (274 males and 294 females; 87 adults and 481 children) were treated in Bethanien. 242 (107 males and 135 females) of these, or 42.60 per cent. (85 per cent. of the adults and 34.92 per cent. of the children) recovered. Tracheotomy was performed on six of the adults, of whom two recovered; it was performed on 375, or 78 per cent. of the children (81.60 per cent. males and 74.03 per cent. females) of whom about 32 per cent. recovered. These figures represent the average percentage of recoveries after tracheotomy in Bethanien, as of the 754 children which were operated on during 1861-76 likewise 31.16 per cent. recovered. Single years give, however, different results; thus we find that while in 1866 the recoveries amounted to 48.14 per cent., in 1868 they were as low as 20.3 per cent. 106 of the children were not operated on, viz: (1) Those with light tonsillar diphtheritis, (2) those who entered the hospital in a moribund state, (3) feeble children under two and a half years, and (4) those who showed a high degree of infection, but no laryngeal stenosis. Of these 49, or 46.29 per cent., recovered. In children under two years of age the mortality was 100 per cent.; between two and three years, 23.65 per cent. recovered; from three to nine the number of those who recovered gradually rose to 45 per cent.; the percentage of those between seven and eight, however, being only 28.86. Above nine years of age the proportion of the recoveries was less favorable. A large number of the cases were complicated with scarlatina and albuminuria, seldom with measles; but when the latter occurred as a complication the prognosis was unfavorable.

The Treatment of Puerperal Fever by Intra-uterine Injections of Disinfectants.

Dr. Franz Linser, of Aalen states, in *Med. Corresp. Blatt des Würtemb. Ärztlichen Vereins*, No. 25 1879, that having, during a recent epidemic of puerperal fever, had the opportunity of testing the comparative value of different therapeutical measures, he has become satisfied that the disease is purely surgical, and that no other treatment is followed by such universally favorable results as the frequent and thorough cleansing of the uterine cavity and va-

ginal canal, with disinfectant solutions injected by means of an irrigator and a metallic catheter. In the early stage of the disease the effect is usually so rapid that the temperature has been observed to fall from 40-41.5° (104-106½° Fahr.) to 37-38° (98½°-100½° Fahr.), in from six to twelve hours and after three or four injections. He does not remove the catheter between each injection, but simply disconnects it from the irrigator and fastens it to the upper portion of one of the thighs by means of a piece of tape. Should the presence of the catheter produce pain, it must be removed; and in introducing it great care should be taken not to wound the inflamed lining of the uterine cavity. For the first three or four injections, he makes use of a two per cent. solution of carbolic acid, after which he uses thymol; salicylic acid, which he made use of for some time, he found to produce roughness of the mucous membrane, and permanganate of potassa he does not use, on account of its staining properties. He points out the importance of retaining the injection for a few seconds, by closing the genital fissure. The constitutional treatment he limits to general hygiene: cleanliness, pure air, easily digestible and nutritious food, wine, and in some cases quinine or benzoate of soda.

Expert Testimony.

In a recent paper on the notorious Hayden murder trial, Dr. Belefieid, of Chicago, says—

"Expert testimony has come to be a byword in attorneys' mouths. This must be elevated, and it rests with the medical fraternity to do this. These quack experts succeed just as charlatans and quack doctors do. In Germany the experts are paid a comfortable living salary, and, of course, all their work and testimony are to the ends of justice."

It is, indeed, a fact that medical experts are too often seen, in the United States, pitted against each other, and prostituting science for money and fame.

Morphia Mania.

At the Berlin Medical Society, Dr. Levinstein read a paper upon this subject, in which he stated that he was enabled to confirm the propositions which he had laid down in his book. With respect to the treatment, he maintains that the proper practice, in general, is to at once leave off the morphia. Yet, in some cases occurring in sensitive persons, it has to be continued in the customary doses for two or three days, and then gradually diminished. A curious fact deducible from the statistics of his cases is that of 110 cases

occurring between the ages of twenty-one and sixty-five, of which number 82 were men, the surprisingly large contingent of 32 were medical men, and 8 medical men's wives. Among the relapses medical men occupied the first place, and after them came apothecaries—facts explicable by the wearing bodily and mental exertion of the medical calling.

Women as Physicians.

In an article in the *International Review*, Dr. Chadwick makes the just observation that the question is no longer, Shall women be allowed to practice medicine? They are practicing it, not by ones and twos, but by hundreds; and the only problem now is, Shall we give them opportunities for studying medicine before they avail themselves of the already acquired right of practicing it? It is clearly the interest of the community to give to women the fullest instruction, in accordance with the most improved systems, and under the most eminent teachers; and also that their proficiency should be tested by the most rigid ordeals before they finally receive certificates. By a recognition of these certificates and their comparative values, the community would be able to protect itself from the impositions of ignorant or fraudulent pretenders to medical knowledge.

The Treatment of Diarrhoea by Ice-water Injections.

Dr. C. A. Ewald, of Berlin, states, in a recent monograph, that he has employed this plan of treatment for more than a year, in those forms of diarrhoea, especially of children, which depend on some alteration of the colon. After each stool he injects from 200 to 300 ccm. of cold water, which is caused to run out again by slight pressure on the abdomen; then he injects 50 ccm. to be retained. The effect of this treatment is surprisingly good, and the mothers readily give their consent to it.

The author has only had the opportunity twice to make use of it in treating adults, but in both cases with equally good results. Whether this is due to the removal of irritating substances or to a diminution of peristaltic motion remains as yet unsettled. The author points out its great advantage in army practice—it costs nothing.

Significance of Tension in Abscesses.

In a paper read before the Medico-surgical Society of Edinburgh, Dr. A. James believed he had established (1), That while there is a relation-

ship between the tension and the acuteness of the process, the tension varying directly with the acuteness, yet, for various obvious reasons, this relationship is not very well marked; (2) that the tension in small abscesses, etc., is greater than in large ones, though here also the relationship is not well marked; and (3), that there is a more definite connection between the tension and the composition of the fluid. The proportion of the mineral matter remained fairly constant, about seven per cent. Otherwise, the opposite of what they might expect holds; namely, that high tensions are associated with thick pus. The converse of this, too, holds, and it is found that a thin fluid is associated with low tension.

Lesions of the Peritoneum in Drunkards.

Professor Leudet, of Rouen, read a paper on this subject, at the recent Montpellier Congress, and arrived at the following conclusions: 1. Persons who abuse alcoholic drinks may become the subjects of ascites, which comes on without marked symptoms and without prior notable derangement of health. 2. Such ascites is susceptible of prolonged arrest, and perhaps even of a definitive cure. 3. The chronic peritonitis of drinkers may come on slowly, without any grave symptom. 4. It seems frequently to be the result of a slow irradiation of lesions of the digestive canal, such as gastric cirrhosis, with or without ulceration, or of enteritis. 5. Chronic peritonitis may induce inflammatory recrudescences of the peritoneum, general or partial effusions, or intra-peritoneal hemorrhage.

CORRESPONDENCE.

How to Arrange Statistics.

ED. MED. AND SURG. REPORTER:—

The following item, which appears in No. 2, (January 11th, 1880) of the REPORTER, under the head of "News and Miscellany," I propose to parody, as an indirect suggestion to many of your learned readers, or such as are particularly interested in matters relating to yellow fever. The point shall not be obscure.

THE YELLOW FEVER IN NEW ORLEANS.

"The total number of cases of undoubted yellow fever which occurred in New Orleans in 1879 were 41, all white. The deaths were 19. Dr. Joseph Holt says of its origin: 'There is not the slightest evidence upon which could be founded a suspicion that the infection was brought into this area by importation of any kind; but, on the contrary, the whole weight of testimony is in favor of the opinion that it was ENGENDERED SPONTANEOUSLY, from local causes' "(?) The italics and interrogation point are emphasized by me. The interrogation, however, relates to the sentiment

per se, and not to the sincere intent of the author.

SMALLPOX IN PENSACOLA.

The total number of cases of undoubted smallpox which occurred in Pensacola in 1879 (actually) was 4; the deaths were 0, all white. Dr. — says of its origin: "There is not the slightest evidence upon which could be founded a suspicion that the infection was brought into this area by importation of any kind; but the weight of testimony is in favor of the opinion that it was ENGENERED SPONTANEOUSLY, from local causes." (?)

SCARLET FEVER IN PENSACOLA.

The total number of cases of undoubted scarlet fever which occurred (actually) in Pensacola in 1877 was three, all white. The deaths were 0. Dr. — says of its origin: "There is not the slightest evidence upon which could be founded a suspicion that the infection was brought into this area by importation of any kind; but, on the contrary, the whole weight of testimony is in favor of the opinion that it was ENGENERED SPONTANEOUSLY, from local causes." (?)

NOTE.—The houses in which the cases of smallpox and scarlet fever occurred in Pensacola were situated in densely populated neighborhoods, and had not been in existence a single decade—were comparatively new; nor had there been one case of either smallpox or scarlet fever in their respective localities within the recollection of the oldest physician, or anybody else. There had not been a single case of smallpox or scarlet fever before the different periods mentioned of their occurrence in Pensacola, in West Florida, for ten years, nor had the subjects been at any time beyond the limits of the district for at least twelve months! ROBT. B. S. HARGIS, M.D.

Pensacola, Fla., Jan. 15th, 1880.

A Fatal Case of Enlarged Tonsils.

ED. MED. AND SURG. REPORTER:—

In reporting the following case I claim no original ideas, but give it for the perusal of the many readers of the REPORTER, with the management which, to my mind, suggests itself in such cases.

On the morning of December 26th I was called to see S. R., a strong, robust man, aged about twenty-one, who was visiting relatives in this place. Two or three weeks previous he could discover a difficulty in swallowing; this continued more or less up to the date of medical aid being sought. Up to this time he had received no treatment. When I first saw him both tonsils were enlarged considerably, with patches of ulceration upon the surfaces. Uvula somewhat elongated, glands of the neck and under angles of the jaws considerably swollen, swallowing more difficult than ever.

At first there was apparently no peculiarity about the case; I have treated a number of cases complaining in a like manner, who made a good recovery. I painted the tonsils and uvula with a mop, with tincture iodine, and had him use a gargle of chlorate of potassium during the day, and one fourth of a grain of morphia every few hours, to induce quietude.

December 27th, 8 A.M. I found him resting better, though complaining yet of his throat a good deal. The gargle and morphia were ordered to be continued, and application of iodine was again had recourse to, as before, with external application also to the lymphatic glands, where swollen. On the evening of the same day, at ten o'clock, I saw him again; the tonsils and uvula seemed to have neither decreased nor increased, although the patches of ulcer were extended to the size of a silver quarter. Here I applied, with a mop, pure acid carbolicum, and had the other treatment go on as usual, with four drachms of sulph. magnesium, to relieve the bowels, which were a little caustic.

I saw him again the next morning, and found him much better than he was the night previous; he had only gargled once since. Finding that another physician had been consulted, I retired, and did not see the case again.

On the evening of January 2d, 1880, the air passages appear to have been completely closed. At this juncture the man thrust his finger into his throat, attempting to open it, but died ere his object could be accomplished.

Remarks.—Should the case have been under my care throughout, and had ordinary therapeutic means failed, I should not have hesitated or considered it at all out of reason to apply the tonsil guillotine, remove a slice from each tonsil, and clip the uvula with a pair of curved scissors. After this I should have used a gargle, if necessary, and painted the remaining swollen parts with tincture iodine. Had this regimen been adopted, after primary means failing, and excision had recourse to, and the ordinary means employed in the management of such cases having failed, I say, then, and only then, would I have termed the case incurable.

Franklin, Ky.

C. A. BLAIR, M.D.

Diphtheria and its Treatment.

ED. MED. AND SURG. REPORTER:—

The articles in your journal, of Drs. Stewart, Baker, and Cullen, would justify the conclusion that diphtheria was a non-malignant and entirely curable disease. The recent mortuary reports of Pittsburg, Allegheny City, Johnstown and other Western Pennsylvania towns, show a mortality of from 20 to 40 per cent.

In a recent epidemic in this community fully 25 per cent. of all attacked died.

I think the different results attributable, not to treatment, but entirely to the difference in the characteristics and tendencies of the disease, in different localities, and in the same locality at different times. In the winter of 1867 and '68 we had an epidemic of sore throat in Fayette County, which could not be classed as anything but diphtheritic. It began with decided chill, high temperature, rapid pulse, loss of appetite, inflammation, and well marked diphtheritic exudation of the fauces. These cases, numbering about 200, under the observation of myself and partner, all recovered in a few days, under the ordinary chlorate potash treatment, evacuants, and astringent gargles.

In the epidemic through which we have just passed the fatal cases were early characterized

by excessive swelling of the throat inside, and of the cervical glands externally, and tumefaction and oedema of the areolar tissue of the neck and even of the scalp, posteriorly, extensive exudation of the membrane covering the fauces and extending forward upon the hard palate and into the posterior nares. The onset in these cases was generally violent, with high temperature, 103 to 104, rapid pulse, 125 to 150, and early signs of exhaustion. In some cases, from apparently mild beginnings, these symptoms in twenty-four hours would be present in all their terror to physician and family, and in spite of all the iron, potash, and quinia that could possibly be kept on the stomach, which, unfortunately, was generally irritable. Nearly every case of this description in my own practice, and in that of my professional brethren in this vicinity, terminated fatally in a period ranging from three to six days, gangrene usually supervening. In those cases in which the internal and external swelling and diphtheritic exudation were well marked but not excessive, a very large proportion recovered.

I am not able from experience to fully endorse Chapman's theory that alcohol acts as an antidote to diphtheritic poison, as it does to the virus of snake bite, but I am sure I had more satisfactory results from the administration of pure whisky and quinia, than from the potash and iron treatment. Paralysis, local and general, has followed in many cases. I think that the patients for whom I prescribed whisky recovered more promptly from this distressing sequela.

Thinking that if alcohol was an antidote to the poison when the disease was developed it would be advisable to keep the system a little saturated with it, in order that the first undeveloped germs of the poison received might be brought in contact with antagonistic elements, I advised families living in infected neighborhoods, and unaffected members of families in which the disease had already appeared, to make use of whisky, in moderate quantities, four times a day, during the prevalence of the epidemic. I had a few mild, but no fatal or malignant cases among the children who had thus been using alcohol as a preventive. The disease has abated here, and my opportunities for the further observation of the value of alcohol as a prophylactic will be limited; but I would like to call the attention of the profession to this point, in places where the disease is still prevailing. The amount of alcohol used was as directed in Flint's Clinical Medicine, viz., to a point short of producing its toxic effects. I gave my own child, three years old, two drachms of pure whisky every hour for thirty hours, with a favorable result. I gave quinia, in two-grain doses, every four hours, to children of ten years, and where the stomach was irritable, ten grains per rectum, as often. Almost every character of local treatment of the throat, externally and internally, was tried, without any satisfactory curative result.

In summing up, it is the result of my observation that in some epidemics of diphtheria the tendency is to recovery, and the patients recover without much regard to the nature of the treatment, while in other epidemics of a more malig-

nant character there are many cases in which the system is so profusely affected by the virus of the disease that they terminate fatally, in spite of the most skillful use of known therapeutic means.

West Newton, Pa.

F. H. PATTON, M.D.

Free Medical Relief and its Abuse.

ED. MED. AND SURG. REPORTER:—

I notice that the *Sunday Dispatch*, in its issue of the 25th inst., has made some strictures on the action of the meeting held on Saturday evening, the 24th inst., at the Hall of the College of Physicians, in this city. This meeting, as mentioned elsewhere, was held for the purpose of taking some action upon the indiscriminate manner in which medical charity is distributed in this city. I have been for some years connected with one of the two prominent dispensaries of this city, and for nearly a year was attached to the eye staff of the Jefferson College Hospital, and thus can be said to speak *ex cathedra*. I have myself frequently seen, at their own homes, from eighteen to twenty dispensary patients, and this not on one day only, but for many weeks at a time; these, of course, were not new cases every day, but would average from one to three or four per day. This takes no account of the districts attended by other physicians of the institution, nor of those who were treated at the dispensary. This experience is probably that of every gentleman who has been attached to a dispensary service. As to who attend these free sittings, there are, of course, many worthy poor who reap the benefits of the institutions, but we know that a large proportion are, if we may use the expression, aristocratic paupers. It has been with me no unusual experience to find families applying for assistance every one of whom was earning from three to eight or ten dollars a week.

At our prominent hospitals it is no uncommon sight to see from 20 to 50 well-dressed, comfortably-circumstanced-looking people assembled to partake of the free medical feast, in only one of the five, six or seven departments into which the service is divided. If we inquire as to where these people reside, etc., we find that by far the larger percentage of them live in from fair to good style. For curiosity's sake, I have at times inquired of dispensary cases, "how long have you been coming to this institution?" and have been surprised to receive the answer, five, ten, twelve, and even twenty years. "Have you not, in this time, been able to pay a physician anything?" "Well, I always came here and could get it for nothing," would be the cheering answer. That a large portion of the blame lays with the profession itself cannot be denied. Dr. Smith, Jones, or Black desires to have his name sent sounding through the land, therefore, he encourages the patients to come to swell the clinic, in order that he may become more known; the consequence is the patients, like sensible people, argue thus: If I or we can get medical attendance, not only free, but thrust upon us, why should we take money from our purse to pay Dr. Somebodyelse?

G. T. SPANGLER

Philadelphia, January 27.

NEWS AND MISCELLANY.

Medical and General Charities.

A meeting of the representatives of the principal medical and general charities was held in this city last week, to devise means to unite the two in humanitarian work. Prof. Gross presided, and about two hundred physicians and philanthropists were present. It was stated that 200,000 citizens of this city annually receive gratuitous medical aid, one-half of whom are not entitled to it. This statement was questioned by some, and we think justly. At the conclusion Dr. Benjamin Lee presented the following resolutions, embodying the recommendations of the sub-committee:—

Resolved, That efforts should be made to prevent the pauperizing and enervating influences of undue and indiscriminate medical relief.

Resolved, That care should be taken that the funds contributed by the benevolent to our hospitals and dispensaries be bestowed only upon the poor.

Resolved, That the committee be called "The Committee on Coöperation of the Medical Charities with the Ward Associations of the Society for Organizing Charity."

Resolved, That the committee be composed of the medical and surgical staffs of the various hospitals and dispensaries, or representatives from each.

Resolved, That this committee shall call an annual meeting of the profession, at which they shall make a report of what they have accomplished.

Resolved, That measures be taken to arrange the dispensary system so as to cover the whole city, in order to afford relief to the poor in every part at an office near to their homes, and to prevent overlapping in the treatment of cases.

Resolved, That a committee be appointed to carry into effect the plan which has been proposed to-night, or such modification of it as they and the several hospitals and dispensaries may deem advisable.

Resolved, That the officers of this meeting be the corresponding officers of this committee.

Medical Legislation.

Last week the Speaker of the House of Representatives laid before the House a letter from the President of the Academy of Science, transmitting a report relative to the prevention of epidemic diseases. Among the recommendations contained in the latter was one that the Board of Health should continue the special investigation already undertaken, and that in addition, investigations should be undertaken by it upon the subjects of cholera, malaria, typhoid and other fevers, diphtheria and cerebro-spinal meningitis, and that \$30,000 should be annually allowed for carrying on such investigations.

—The Russian army, in the late war with Turkey, used 1820 lbs. ipecac., 28,000 lbs. castor oil, 5600 lbs. carbolic acid, 5000 lbs. sulphate of quinine, 8000 lbs. chloroform, 7000 lbs. camphor, etc.

A Correction Asked.

The *Medical Summary*, in quoting Dr. Black's article from the *REPORTER*, April, 1879, neglects to make the correction of one of his statements in regard to Messrs. Parke, Davis & Co's preparation of the bark of the root of the wahoo, given in the May number. We call the editor's attention to this omission, as these manufacturers assured us that they prepare their extract from the bark of the root, and not of the tree.

Honor Your Own Country.

In its issue for January 17th the Cincinnati *Lancet and Clinic* quotes Dr. Henning's article on the appearance of the tongue in disease, and credits it to the *London Medical Record*. As the *Record* took it from the *MEDICAL AND SURGICAL REPORTER*, and gave due credit, and as Dr. Henning is a medical gentleman resident in Indiana, it is neither fair to him nor to this journal that the *Lancet* should omit the reference to the *REPORTER* in its quotation. The article is not a bit the worse for not proceeding from the pen of an Englishman or a German.

Personal.

—Dr. Albert H. Smith was elected President of the Philadelphia County Medical Society, at the election, January 21st.

—By a dispatch from Washington, we learn that Dr. Thomas H. Sherwood has been nominated to the Senate, by the President, as Supervisor of the census for Philadelphia.

—On page 20 of this volume we published a letter from Dr. R. J. Cullen. We should not have done so had we then known Dr. C. is a peripatetic, who distributes handbills and advertisements in the public papers.

—Dr. William H. Gregg, chemist, of Elmira, New York, recently announced to the Elmira Academy of Sciences the discovery of a process for producing artificial dyes from gum camphor.

—Prof. Erasmus Wilson, the dermatologist, proposes to erect, at his own cost, a swimming bath and chapel at Margate, England, to cost not less than \$100,000. It will be remembered that Mr. Wilson presented the Egyptian obelisk to London, a few years ago.

—In the concours for the chair of Gynecology, in the spring course of the Rush Medical College of Chicago, the successful candidate was Dr. R. Stansbury Sutton, of Pittsburgh, Pa. The course will require his presence in Chicago for about six weeks, but he does not contemplate a change of residence.

—Dr. Oliver Hoff, of San Francisco, who died recently, directed in his will that a monument, not to exceed \$1000 in cost, should be placed over his grave, and forbade any society of which he was a member, or any friends, to pass resolutions of condolence over his decease, or communicate the fact to his friends in the east.

—Prof. Rudinger, of Munich, made eight longitudinal sections of the frozen human body, and had them copied by competent artists. These sections are so connected together that they can

be opened or closed just like the leaves of a book—the fourteen surfaces when exposed exhibiting, in their natural form and color, all the anatomical details of the various organs. "A most interesting spectacle it was," says the writer, "to have the body in the erect posture before you, and opening or shutting any of these sections. A more complete demonstrative object for clinical instruction cannot be conceived."

Items

—Plaster of Paris is added to wines, says Prof. Pollaci, in the Italian *Chemical Gazette*, to such a degree that *connoisseurs* should be made aware of the fact that under the name of wine they might possibly be drinking a saturated solution of plaster of Paris. This had also a special interest for pharmacists, seeing that it might account for some of the impurities in cream of tartar.

—The Michigan State Board of Health has inaugurated a series of Sanitary Conventions, to be held in the more prominent towns of the State. The object of these meetings may, in general, be said to consist, first, in diffusing sanitary knowledge among the people, and second, in developing thought and action relative to sanitary matters. The means for attaining these ends are, the presentation and discussion of definite topics and the exhibition of sanitary apparatus.

—The warm winter in this section keeps alive the malarial poison. According to the Delaware county *Gazette*, "the prevalence of typho-malarial fever in and around Chester, at the present time and for the past two months, is really alarming. In some parts of the city it has almost reached an epidemic, 50 per cent. of the people living in those localities being affected more or less by the disease. In many cases it has been as severe as typhoid fever, and in fact nearly all the cases had a decidedly typhoid aspect."

—The mortality from diphtheria in Russia is attributed largely to the superstitions of the natives. Russian peasants refuse to accept medical aid of any kind, even when in extremity. To all such offers they reply, with their wonted fatalism, "If we are to die, no medicine can save us; if we are to live, we don't need it." The prolonged fasts of the Greek Church, the practice of baptizing infants in ice-cold water, which it would be thought impious to warm, and of clothing them insufficiently until the age of seven, in compliance with some absurd superstition, yearly causes countless deaths.

OBITUARY NOTICES.

—Dr. E. B. Wolcott, Surgeon General of Wisconsin, and member of the Board of Managers of the National Soldiers' Home, died of pneumonia, at his residence, in Milwaukee, on Jan. 5th, after a few days' illness. He was 75 years of age, and was widely known throughout the Northwest.

—On January 19, Medical Director J. Winthrop Taylor, United States Navy, aged about sixty-four years, died suddenly, in Boston, of heart dis-

ease. He was a native of New York, and was appointed to the navy from New Jersey, March 7th, 1838. He received his commission as Surgeon on May 1st, 1852, and as Medical Director on March 3d, 1871. He had seen service at sea in all parts of the world, and recently held for some time the position of Surgeon General and Chief of the Bureau of Medicine and Surgery in the Navy Department.

QUERIES AND REPLIES.

Blistering in Pneumonia.

Dr. G. W. Stewart, of Iowa, replies to Dr. J. W. F., of Texas, on this subject:—

"The only benefit to be derived from blistering in pneumonia is in its action as a derivative, which can be obtained only in the stage of congestion. After hepatisation has ensued derivation must cease, and the only effect following vesication can be that resulting from the creation of an additional centre of irritation, increasing the discomfort of the patient, and an obstacle to physical exploration. As the latter stage has usually begun when a patient is first seen, the measure is best not resorted to at all.

Subscriber, Mich., asks: "How many medical colleges are there in Philadelphia, and what are they?"

Ans.—Only three worthy the name, "The Medical Department of the University of Pennsylvania," "The Jefferson Medical College," and "The Woman's Medical College of Pennsylvania."

Purist, N.Y.—In *cinchona* the *ch* should properly be soft; but custom authorizes the hard sound in many places. *Troches* is pronounced with the *ch* soft, as it is taken from the French, although the *ch* is the Greek *Chai*.

J. P., of O.—Both Watson and Wood's *Practice* are quite out of date. They would not be worth your buying.

Surgeon, Iowa.—We can send you the instruments you want. Remit the price and specific directions as to make, etc.

MARRIAGES.

CUSHMAN—POTTER.—On Wednesday, January 14, at Calvary Church, Germantown, Pa., by the Rev. J. DeWolf Perry, Dr. William F. Cushman, of New York, and Mary Elizabeth, daughter of Philip J. Potter, of Germantown.

GAMBLE—McCOY.—At Farmington, Ill., December 31st, by Rev. O. A. Elliott, assisted by Rev. J. R. Reasoner, Dr. M. T. Gamble and Alice McCoy.

PATTERSON—VAN MATER.—At the residence of the bride's mother, Chapel Hill, Monmouth Co., N. J., on December 1st, 1879, by Rev. S. F. Gaskill, Wm. F. Patterson, M.D., of Navesink, N. J., and Miss Mary H. Van Mater.

REBMAN—DETWILER.—At Wrightsville, on Tuesday, January 13th, 1880, at the residence of the bride's parents, by Rev. S. E. Herring, G. A. Rebman, M.D., and Miss Ella K. Detwiler, both of Wrightsville, Pa.

DEATHS.

DOLLAHAN.—In Cincinnati, O., Dr. J. H. Dollahan.

KELLY.—In this city, on the 18th inst., Deborah, wife of Dr. M. D. Kelly, in the 66th year of her age.

TAYLOR.—At his residence, Woodlands, near Hurlington, N. J., on First day afternoon, 18th instant, Joseph W. Taylor, M.D., in the 70th year of his age.

VAN PRAAG.—In New York city, suddenly, on Friday evening, the 18th inst., Aaron S. Van Praag, in the 74th year of his age.